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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,954	09/23/2003	Anand P. Narayan	TCOM0007	4754
39258 7590 11/21/2008 TENSORCOMM, INC. c/o iSherpa Capital 6400 S. Fiddler's Green Circle, Suite 650 Greenwood Village, CO 80111				
EXAMINER				
TRAN, KHAI				
ART UNIT		PAPER NUMBER		
2611				
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11/21/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/669,954

**Applicant(s)**

NARAYAN ET AL.

**Examiner**

KHAI TRAN

**Art Unit**

2611

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13, 26-38, 57-59, 61-74 and 80-85 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 80-85 is/are allowed.
- 6) ☒ Claim(s) 1-13, 26-38, 57-59 and 61-74 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Claims 1, 8, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding 1, there is no connection between the first limitation and a second limitation of the claim.

Regarding claim 8, line 2, the term "said potential interferes" lacks antecedent basis.

Claim 9 is rejected by virtue of their dependency.

***Claim Objections***

2. Claim 33 is objected to because of the following informalities: Appropriate correction is required.

Regarding claim 33, line 1, the term "a raw signal stream" should be changed to -the raw signal stream--.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5-8, 13, 26, 59, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al (U.S. Pat. 7,194,051) in view of Ottosson et al (U.S. Pat. 6,683,924).

Regarding claim 1, Li et al disclose a method for selectively enabling signal interference cancellation, comprising: identifying a plurality of signal paths; for a set of the identified signal paths, determining an observed signal strength (col. 3, line 65 to col. 4, line 49); Li et al fail to disclose to identify at least one of the signal paths as a potential interferer based at least in part on the observed signal strength; and creating at least a first interference cancelled signal stream.

Ottosson et al disclose identifying at least one of the signal paths as a potential interferer based at least in part on the observed signal strength; and creating at least a first interference cancelled signal stream (col. 18, lines 24-37). It would have been obvious to one having ordinary skill in the art at the time the invention was made to cancel the potential interference based at least in part on the signal strength as taught Ottosson et al into the teachings of Li et al in order to reduce search operation.

Regarding claim 5, Li et al also disclose wherein said set of identified signal paths comprises a set of assigned signal paths 9col. 4, lines 10-21).

Regarding claim 6, Li et al disclose wherein said set of assigned signal paths is obtained from a demodulation path list (from a demodulation finger 220).

Regarding claim 7, Ottosson et al disclose wherein said identifying a plurality of potential interferers comprises identifying a first number of signal paths having at least a first signal strength (col. 18, lines 24-57).

Regarding claim 8, Ottosson et al disclose listing said potential interferers in a cancellation candidate list (col. 14, lines 52-63).

Regarding claim 13, Ottosson et al disclose storing an identity of said at least a first interference cancelled signal (a memory 360).

Regarding claim 26, Li et al disclose establishing a connection between a demodulating finger and one of a raw signal stream and an interference cancelled signal stream based on an entry in said cancellation list (a connection between the demodulation elements 220 and the raw signal (samples) as shown in Figure 2). Li et al fail to disclose populating a cancellation list with an identity of at least a first signal path that has been identified as an interfering signal path.

Ottosson et al disclose populating a cancellation list with an identity of at least a first signal path that has been identified as an interfering signal path (col. 14, lines 52-62).

Claim 59 is similar to claim 1. Therefore, claim 59 is rejected under a similar rationale.

Claim 61 is similar to claim 1. Therefore, claim 61 is rejected under a similar rationale.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 57-58 are rejected under 35 U.S.C. 102(e) as being anticipated by Li et al (U.S. Pat. 7,194,051).

Regarding claim 57, Li et al disclose a set of data structures for use in identifying a potentially interfering signal path as shown in Figure 2, comprising: a demodulating finger identifier (a demodulation element (Finger) 220); a signal path assigned to each demodulating finger identifier (see Figure 2); and a signal strength associated with each signal path (a received strength indicator (RSS) 254).

- Regarding claim 58, Li et al a sector associated with each signal path (see Figure 2).

### ***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-13, 26-38, 57-58, 59, 61-64, 65-68, 69-72, and 73-74 are rejected under 35 U.S.C. 101 because the claims 1-13, 26-38, 57-58, 59, 61-64, 65-68, 69-73, and 73-74 as not failing within one of the four statutory of the invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to

a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as statutory process.

***Allowable Subject Matter***

8. Claims 80-85 are allowed.
9. The following is a statement of reasons for the indication of allowable subject matter: Li et al and Ottosson et al fail to disclose a receiver configured for processing a raw signal stream, comprising: a cancellation controller operable to selectively provide either or both of the raw signal stream and at least one interference cancelled signal stream to the plurality of demodulation fingers; and at least one cancellation module configured with the cancellation controller and operable to remove at least one replica of an interfering signal path from the raw signal stream to generate one of the at least one interference cancelled signal streams.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Aldaz et al (U.S. Pat. 6,975,670) disclose a managing assigned fingers.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI TRAN whose telephone number is (571) 272-3019. The examiner can normally be reached on 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KHAI TRAN/  
Primary Examiner, Art Unit 2611

*November 14, 2008*



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